SUMMARY

OF THE

1986-87 SURVEY

OF

EDUCATIONAL COMPUTING

IN MANITOBA

Manitoba
Industry, Trade
and Technology

Manitoba
Education

Educational Technology Program
1970 Ness Ave., Winnipeg, Manitoba R3J 0Y9

TABLE OF CONTENTS

		Page
I.	HIGHLIGHTS	1
II.	INTRODUCTION	2
III.	COMPUTER HARDWARE	3
IV.	ADMINISTRATIVE APPLICATIONS	4
V.	PERIPHERAL EQUIPMENT	5
VI.	COMPUTER STUDIES COURSE ENROLLMENTS	6
VII.	STUDENT-TO-COMPUTER RATIO	6

I. HIGHLIGHTS

- Of the 805 Manitoba public and private schools surveyed, 658 responded with useable data.

1. COMPUTER HARDWARE

- Ninety-seven percent (97%) of Manitoba schools responding, indicated that they were using computers during the 1986-87 school year.

- There were 7,063 computers in the schools at the time of the survey.

2. ADMINISTRATIVE APPLICATIONS

- Word processing and student records were the administrative applications most frequently reported as being used.

3. PERIPHERAL EQUIPMENT

- There were 1,818 printers in the schools.
- Approximately 20% of schools reported having modems.

4. COMPUTER STUDIES COURSE ENROLLMENTS

- Respondents from the 658 schools reported 110,484 students were enrolled in "computer studies courses". The largest group of students was found to be at the K-3 level.

5. STUDENT-TO-COMPUTER RATIO

- The student-to-computer ratio for Manitoba schools in the 1986-87 school year was calculated at approximately 29:1.

II. INTRODUCTION

The Educational Technology Program (ETP) is a major component of InfoTech Manitoba, an initiative of the Manitoba government intended to support technology development and implementation within the province. The purpose of ETP, a joint effort of Manitoba Education and Industry Trade and Technology, is to assist educators in the application of technology in classrooms and schools throughout Manitoba.

The InfoTech Resource Centre, located at 1970 Ness Avenue, Winnipeg, Manitoba was established to be a vehicle for the delivery of technology related programs. As well, it was intended to be a facility for use in demonstrating the application of technology in classrooms, offices and places of business. A significant portion of the Center is utilized by the Educational Technology Program, which focuses upon providing technology transfer to the Kindergarten to Grade 12 educators and students of Manitoba.

Survey research regarding the use of educational technology is not new. Since the 1980-81 school year, Manitoba schools have been surveyed in order to examine trends in the acquisition and use of technology.

The purpose of this survey was to:

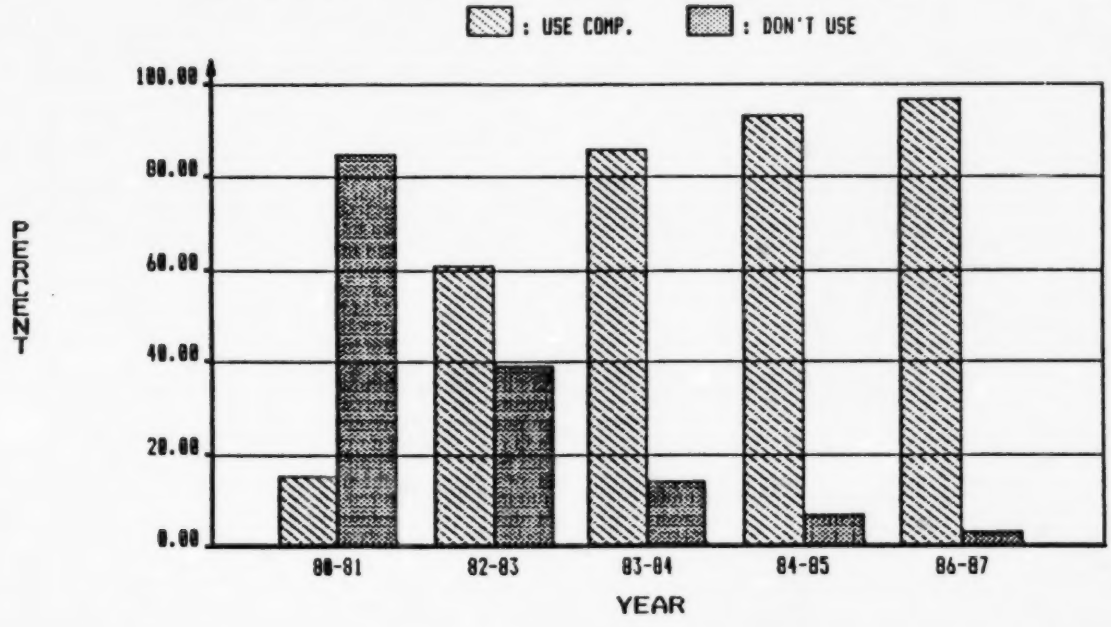
- determine the installed base of microcomputer hardware in Manitoba schools;
- determine the student enrollments in all K-12 educational computing courses; and,
- identify directions schools are taking in the application of instructional technology, (i.e. hardware and/or software purchases, teacher training, etc.)

Of the 805 public and private schools surveyed, 658 responded with useable data.

III. COMPUTER HARDWARE

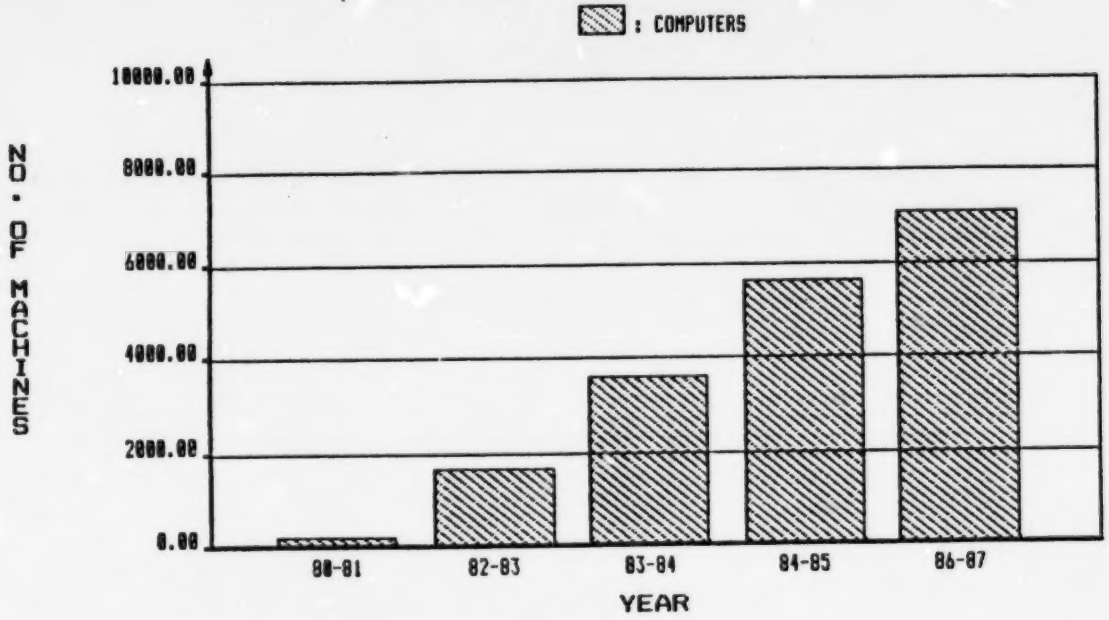
Ninety-seven percent of the 658 schools responding indicated that they were using computers during the 1986-87 school year. This represents a 4% increase over the last survey period (Graph 1).

GRAPH 1: SCHOOLS USING COMPUTERS BY YEAR



In total, there were 7,063 computers in the schools at the time of the survey representing a 26% increase over the last survey period (Graph 2).

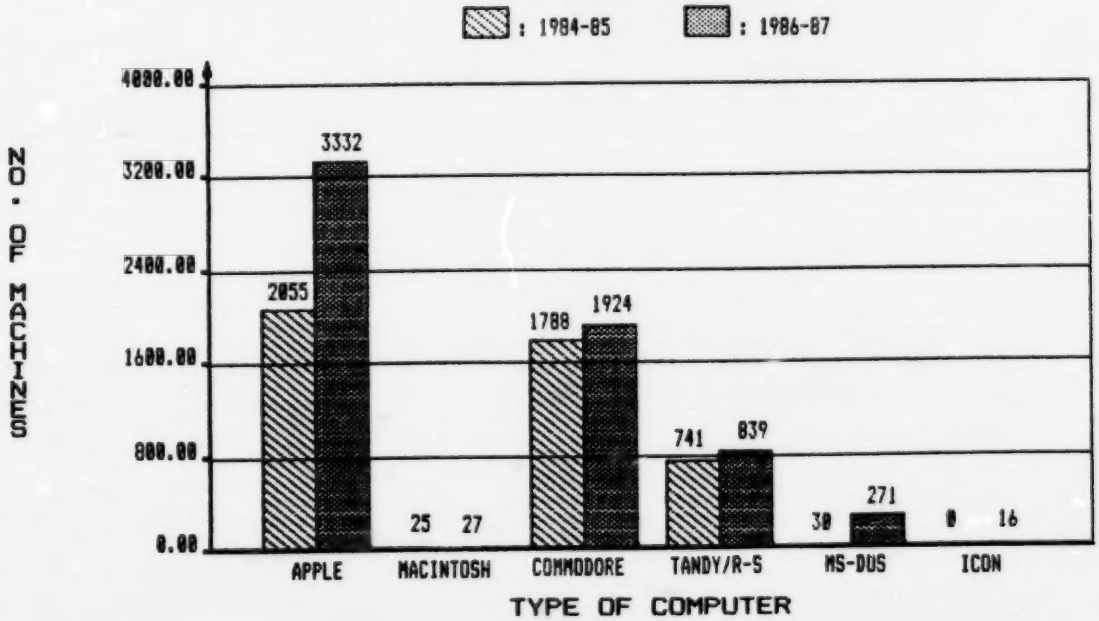
GRAPH 2: NUMBER OF COMPUTERS BY YEAR



With respect to individual totals, there were 3,359 Apple (II+, IIc, IIe, MacIntosh); 192 Commodore (PET, C64, C128, PC10); 824 Tandy (Model III, IV, Tandy 1000, 1200, 3000); 271 MS-DOS (139 IBM, 83 Tandy, 49 Commodore, 25 Sperry); 16 ICON's.

Graph 3 represents the above figures.

GRAPH 3: TYPE OF COMPUTERS IN SCHOOLS



IV. APPLICATIONS

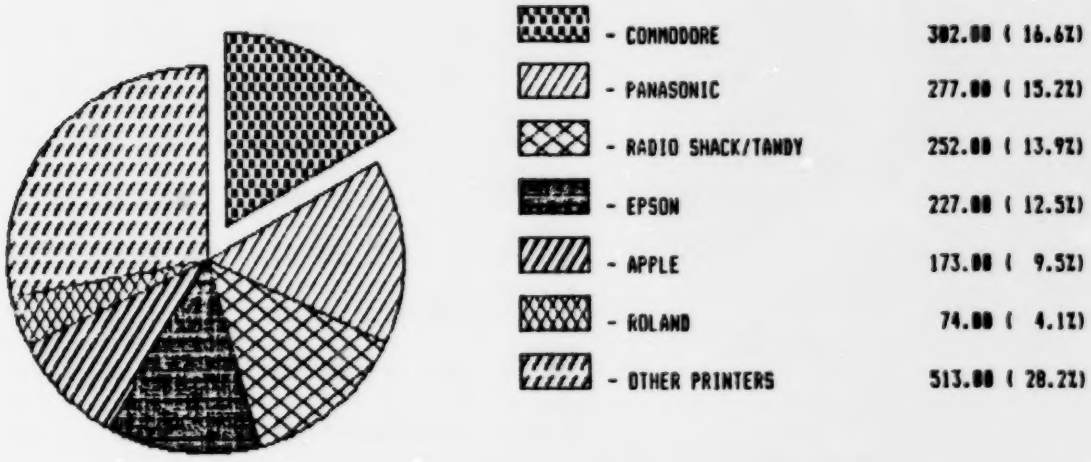
Word processing (260 schools) and student records (253 schools) were the administrative applications most often reported as being used.

V. PERIPHERAL EQUIPMENT

Overall, schools reported having 1,818 printers. Twenty-two percent of the schools responding, indicated they had Epson printers, while 17% indicated having Commodore printers.

In terms of "real numbers" it was found that the three most frequently owned printers were: Commodore (302); Panasonic (277); and, Tandy/Radio Shack (252) (Graph 4).

GRAPH 4: NUMBER OF PRINTERS BY MANUFACTURER


- COMMODORE 302.00 (16.6%)
- PANASONIC 277.00 (15.2%)
- RADIO SHACK/TANDY 252.00 (13.9%)
- EPSON 227.00 (12.5%)
- APPLE 173.00 (9.5%)
- ROLAND 74.00 (4.1%)
- OTHER PRINTERS 513.00 (28.2%)

TOTAL: 1818.00 (100%)

One hundred and thirty-five (135) schools reported having modems which represented 21% of the respondents.

Forty-eight (48) schools indicated that they had local area networks.

VI. COMPUTER STUDIES COURSE ENROLLMENTS

In total, the 658 schools reported that there were 110,484 students enrolled in computer related courses at the time of the survey. The largest group of student enrollments were found in computer awareness courses at the K-3 level (Graph 5).

GRAPH 5: COURSE ENROLMENTS

- K-3 COMPUTER AWARENESS	39859.00	(35.4%)
- 4-6 COMPUTER AWARENESS	32915.00	(29.8%)
- 7-9 COMPUTER AWARENESS	26249.00	(23.8%)
- COMPUTER AWARENESS 105	4146.00	(3.8%)
- DATA PROCESSING 202	2016.00	(1.8%)
- DATA PROCESSING 302	702.00	(.6%)
- COMPUTER SCIENCE 205	2116.00	(1.9%)
- COMPUTER SCIENCE 305	923.00	(.8%)
- OTHER COMPUTER COURSES	2358.00	(2.1%)

TOTAL: 110484.00 (100%)

VII. STUDENT-TO-COMPUTER RATIO

At the time of the 1986-87 survey, the Province of Manitoba had approximately 200,000 students and over 7,000 computing units within K-12 schools. Therefore, the overall student to computer ratio is calculated at approximately 29:1. This ratio should not be interpreted to mean that 29 "real" students attempt to share each computer in Manitoba but rather that as an overall statement of computer saturation, the provincial ratio can be expressed in this way.